

EDITORIAL ARTICLES.

THE OPERATIVE RESULTS IN CASES OF TUBERCULOUS DISEASE OF THE WRISTS AND OF THE TESTICLES.

In an article on "Modified Resection for Tuberculous Disease of the Wrist," which is published by Dr. O. Fahrenbach, of Goettingen, in the *Deutsche Zeitschrift f. Chirurgie*, December, 1886, (Bd. 25, Hft. 1 and 2), the author publishes twenty-eight cases, in which resection of the wrist was performed for tuberculous disease at the surgical clinic in Goettingen (Prof. Koenig), and proceeds to analyse them with a view to determining the value of the operation in its final curative effect, and in order more accurately to recognize the indications for resection.

The operations were all performed between the years 1875 and 1885 (March) and the author has been at considerable pains to ascertain the final condition of all the patients operated upon.

Tuberculous processes of the wrist begin, in the opinion of the author, with very few exceptions in the carpus, and not in the radius nor ulna. In fact the radio-carpal articulation is the less likely to be pathologically affected, as it is anatomically distinct from the carpal articulations. But whether, in cases where the bases of the second and third metacarpal bones are affected, the disease most frequently begins in the metacarpal or in the carpal bones cannot yet be definitely decided.

The method of operating adopted at the Goettingen Clinic is based upon this observation, that the carpus is generally primarily attacked. A dorsal incision after Langenbeck is made, after application of Es-march's bandage, and the carpal articulation opened on the radial side of the index extensor-tendon. After pulling aside the tendons with retractors, the carpal bones are removed by means of a large Volk-mann's spoon, as may appear indicated. This act is rendered more or less easy of performance, according to the progress of the disease

Finally all affected soft tissues as well as portions of approximate bones are removed, and the cavity irrigated, iodoformised, drained and antiseptically dressed.

The hand is maintained in a position of dorsal flexion, at first by the starched bandage, afterwards by a suitable apparatus of steel and leather. Passive movements of the fingers are continued from the third to the sixth week.

In a few (6) cases typical resection after Langenbeck was performed. In twenty-two cases the whole carpus was removed in the manner above described, although the bones were not all affected.

In eighteen cases the affections were complicated by fistulæ and abscesses; in ten cases no such complications existed. No deaths occurred; recovery took place within a period varying from one month to a year in those cases in which the result could be ascertained. In five cases nothing could be learned. In sixteen cases a small fistula remained, not, however, interfering with the use of the hand. Three cases did not recover; two died, two and six months respectively after operation, in consequence of tuberculous affections. Secondary amputations were not necessary, but smaller operations such as curetting the fistulæ, etc., were resorted to in six cases. In one case amputation was done by other surgeons.

As to the final results achieved the author states that in no case did perfectly normal function result. In two cases the hand had a nearly normal function. In eleven cases the patient could use his hand to work in the field, or for writing, playing on the piano, playing billiards, etc. In three cases the function was more seriously impaired, and in three further cases the hand could only be used for holding things.

Motion to the extent of 20° to 35° generally returned in the wrist, as regards flexion and extension.

In no one case could any general infection of the system with tubercle virus be traced to the operation, nor does the author believe that the general health of patients was ever seriously impaired by the longer duration of the recovery after resection than after amputation, since in those cases where fistulæ remained the secretion was minimal.

The mortality percentage after resection of the wrist does not ma-

terially differ from that after resections of other joints for tuberculous disease, and a number of deaths are certain to occur, in the opinion of the author, for the reason that tuberculous disease of the wrist is to be viewed as a metastasis or local expression of a general disease.

As to the final results of exsection of the wrist, the author believes them to be equally as good as those of other joints; and resection is by far preferable to amputation, as any description of hand possesses immense advantages over a stump.

Contrary to Bidder and Schede the author insists on the importance of removing the entire carpus in resections of the wrist, whether all the bones are diseased or not. Only by this means can good results be obtained, as illustrated by the results of Ollier and those of Koenig under consideration. Equally important is it to maintain dorsal flexion during the whole time of healing and for some time after by means of suitable contrivances. The use of iodoform is also recommended for its specific influence upon tuberculous disease.

W. W. VAN ARSDALE.

The Results of Castration for Tuberculosis of the Testicle—A. Finckh publishes some statistics on a basis of twenty-nine cases of castration performed for tuberculosis of the testicle in the surgical clinic at Tuebingen.¹ In some cases the time of observation after the operation extended to thirty years, and at the least to one year.

He warns against the partial extirpation of the testicle, which has been recommended by some, to preserve for the patient the "illusion" of virility, rightly claiming that it is impossible to be certain that the rest of the testicle is really healthy, and with respect to psychic effect of castration, he quotes the case reported by Simmonds (*Arch. f. klin. Med.*, Bd. xxxviii., p. 585) in which double castration for tuberculosis relieved the patient of decided hysterical symptoms.

The epididymis is the most frequent starting point for the tubercular process, much less frequently the body of the testicle, and only now and then the seminal vesicles, or the prostate. The infection

¹ Ueber die Endresultate der Castration bei Hodentuberkulose. A. Finckh, *Beitraege z. klin. Chirurgie*, P. Bruns, Bd. ii., p. 407.

very rarely descends from the kidney to the genital organs. The tuberculosis frequently spreads from the epididymis to the body of the testicle, and sometimes to the tunica and the scrotal tissues. The tunica is often the seat of miliary tubercles. The infection may extend along the vas deferens to the prostate and seminal vesicles, and it may reach the testicle of the other side, by descending its vas deferens. But out of eight cases in which double castration was performed, Finckh found the vas deferens healthy on both sides at the time of operation in five, and in two it was diseased only upon one side. In the remaining case both cords were tuberculous, and on one side the changes extended within the pelvis, so that some diseased tissue was left after extirpation, and yet the patient lived twenty-three years after. In like manner, Simmonds (*loc. cit.*) found the prostate healthy in three cases out of five of tuberculosis of the epididymis of both testicles, consequently the disease must have had an independent origin upon both sides, or the infection was able to pass through the prostate without affecting it. The existence of disease in both testicles, then, does not prove that the intra-pelvic parts are involved, and even if they are, recovery is possible although the whole diseased tissue cannot be removed—therefore the opinion held by some, that castration is contraindicated when the tuberculosis exists upon both sides, is erroneous.

It has generally been supposed that if the intra-pelvic parts of the genital organs were tuberculous, the prognosis was hopeless, and yet in seven cases in which some diseased tissue had to be left in the cord, none had recurrence—the elapsed time of observation after operation being 24, 6, 5, 3, 2 and 1 [2 cases] years. Finckh does not seem to be familiar with the fact that in the two cases of spontaneous recovery from tuberculosis of the testicle, proven by autopsy, quoted by Reclus,¹ the prostate was involved when the process was at its height. Unfortunately Finckh does not give any facts as to the prognosis when castration is not performed.

The youngest of Finckh's cases was 8 years old, the next 18, the oldest 63. Of the 29 cases 6 died subsequently of tuberculosis of

¹ Du Tubercule du Testicule, P. Reclus. Paris, 1876.